What I claim is:

1. A method for inputting, displaying and transmitting handwriting characters in a mobile phone, comprising the following steps of:

        a) inputting handwriting characters;

        b) sampling said handwriting characters;

        c) performing A/D conversion of the sampled handwriting characters to obtain a signal;

        d) encoding said signal in accordance with a specific protocol to obtain encoded data;

        e) converting the encoded data into mobile phone acceptable data, and outputting them; and

        f) processing the mobile phone acceptable data to display the handwriting characters and to transmit them as a short message, or to receive and display a short message (from other mobile phone) comprising the handwriting characters.

2. The method according to claim 1, wherein said step e) comprises performing a level conversion with respect to an external interface of a handwriting character input module.

3. The method according to claim 2, wherein said step e) further comprises providing an additional power supply to said handwriting character input module.

4. The method according to claim 1, wherein said step f) comprises the following steps of:

        communicating with an interface module, comprising interpreting the received data according to the specific protocol and outputting dot-information corresponding to said handwriting characters;

        displaying the handwriting characters; and

        encoding the short message including the handwriting characters so as to enable the short message to be transmitted by the mobile phone.

5. The method according to claim 1, wherein said step f) comprises decoding the short-message including the handwriting characters after receiving it so that the handwriting characters included in the short message can be identified.

6. The method according to claim 4, wherein the step of communicating with the interface module further comprises the following steps of:

setting a receiving port appropriately so as to receive a data stream including the handwriting characters;

interpreting the received data stream and outputting dot-information corresponding to the handwriting characters; and

compressing the outputted dot-information.

7. The method according to claim 6, wherein the step of interpreting the received data comprises the following steps of:

determining whether or not individual character has been completely input; and

interpreting the received data in the unit of individual character.

8. The method according to claim 7, wherein the step of determining whether or not individual character has been completely input is performed by judging whether point coordinates of the individual character fall into a specific scope.

9. The method according to claim 7, wherein the step of determining whether or not individual character has been completely input is performed according to a pause time during inputting the individual character.

10. The method according to claim 4, wherein the step of displaying the handwriting characters includes the following steps of:

determining the type of the input characters; and

displaying the characters.

11. The method according to claim 5, wherein the step of decoding the short message including handwriting characters includes the following steps of:

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determining whether or not the received short message includes handwriting characters;

decoding the handwriting characters if the short message includes the handwriting characters; and

processing standard characters included in the received short message in a conventional manner, if any.

12. The method according to claim 6, wherein the step of interpreting the received data stream includes the following steps of:

determining a position of the tracing point of the handwriting characters according to X- and Y-coordinates of the tracing point thereof ; and

determining whether or not the inputting of the handwriting characters is completed according to a pressure value p of the handwriting input module.

13. The method according to claim 4, wherein the step of encoding the short message including handwriting characters comprises the following steps of:

setting one byte to represent the type of data that follows at the beginning of a character string;

setting one byte to represent those characters belonging to Default Alphabet character-set, each of which has 7 bits;

setting two bytes to represent those characters belonging to UCS2, each of which has 16 bit codes; and

setting two bytes to represent data length of other characters, followed by the data.

14. A mobile phone with function of inputting, displaying and transmitting handwriting characters, comprising:

a handwriting input module for inputting the handwriting characters, performing A/D conversion, encoding the converted signal, and outputting encoded data complying with a specific protocol;

an interface module for performing a signal conversion of the encoded data and outputting data acceptable to a mobile phone; and

a handwriting character process module for processing the received data to display handwriting characters, or transmitting and receiving a short message including the handwriting characters.

5   15. The mobile phone according to claim 14, wherein said interface module is a transformer for performing a level conversion of the input encoded data.

16. The mobile phone according to claim 14, wherein said interface module includes an additional power supply to the handwriting input module.

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17. The mobile phone according to claim 14, wherein said handwriting character process module includes:

a communication module for interpreting data output from the interface module and outputting dot information corresponding to handwriting characters;

15   a display module for displaying the handwriting characters;

an encoder for encoding the dot information of the handwriting characters and outputting a transmissible short message including the handwriting characters; and

a decoder for decoding the received short message including the handwriting characters, and outputting recognizable and displayable handwriting characters.

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18. The mobile phone according to claim 17, wherein said communication module includes:

a adapter for matching with the interface module and outputting required data stream;

25   a data processor for interpreting the data received from the adapter and outputting dot information corresponding to the handwriting characters in the unit of the characters; and

a compressor for performing a compression conversion of the dot information and outputting the compressed dot information corresponding to the handwriting characters.

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19. The mobile phone according to claim 18, wherein said data processor includes a first recognizer for determining whether or not the inputting of the handwriting characters is completed.

5   20. The mobile phone according to claim 19, wherein said first recognizer is a recognizer for judging whether or not the inputting of a character is completed according to whether or not a point coordinate of the character falls into a specific scope.

21. The mobile phone according to claim 19, wherein the first recognizer is a recognizer
10 for judging whether or not the inputting of a character is completed according to a pause time during inputting the character.

22. The mobile phone according to claim 17, wherein said display module includes:
    a second recognizer for determining the input characters being handwriting
15 characters or mixed characters which include handwriting characters and standard characters, and outputting a corresponding signal;
    a first display for displaying the handwriting characters in a deformative form or in a standard form; and
    a second display for displaying the handwriting characters in a standard form and
20 outputting standard mixed characters.

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